maximum between the first and second minute after the beginning of the irritation. 4. During simultaneous irritation of the vagi in the neck and the splanchnics in the thorax, the inhibition of the latter causes only a diminution of the contraction of the pylorus. Maximal irritations of the splanchnics cannot completely paralyze weak irritations of the vagus. During the maximum of irritation of the splanchnic, the period of absolute quiet, irritation of the vagus is either without effect or causes only a scarcely noticeable elevation. 5. Irritation of the left splanchnic has a stronger action than that of the right.—*Centralblatt für die medicinischen Wissenschaften*, 1884, No. 26.

THYROID GLAND.—Schiff has made a series of experiments upon the lower animals. In the majority of the animals operated upon, he found that after a week or two a peculiar soporific state ensued, ending in death. On post-mortem no cause was discoverable. His results were as follows :

1. The mere laying bare of the thyroid gland, the section of the recurrent nerve in the neighborhood, the removal of nerve-branches passing to the gland from the recurrent nerve, did none of them occasion the peculiar symptoms following the removal of the gland itself.

2. It was also found that the nerve-branches, which in the dog accompany the chief arteries of the gland, and which are branches of the superior laryngeal nerve, might be cut without producing the peculiar symptoms. He noted, after the removal of the thyroid, well-marked fibrillary muscular contraction under the skin. At later periods convulsive movements of the limbs. There was increased irritability of the phrenic. A feeling of tickling over the skin in many animals. The general sensibility of the skin of the limbs became gradually lost from the periphery toward the centre. Very low blood-pressure was met with toward the end. Schiff believes that the gland has an intimate connection with the nutrition of the central nervous system.—*Edinburgh Clinical Journal*, July 19, 1884.

THE PATH OF THE FIBRES NARROWING THE PUPIL.—Dr. Bechterew has made several observations upon this subject. His results are as follows :

1. Reflex-fibres narrowing the pupil are not contained either in the optic tract, or in their central ends in the corpora geniculata and corpora quadrigemina of the higher animals, or in the corpora bigemina of birds.

2. Those fibres have their beginning in the retina of the eye, and run in the optic nerves and behind the chiasm, enter the central gray matter in the cavity of the third ventricle, and join the nuclei of the oculomotor nerves, from which they return to the periphery in the trunk of the oculomotors.

3. During their whole course in the central gray matter the pupil-contracting fibres remain without decussation.

4. Each eye possesses its independent reflex-arc, which runs through the optic nerve, the corresponding half of the central gray substance, the nucleus and trunk of the oculomotorius on the same side.

5. Between the reflex-arcs of the two sides there is a connection, which transfers reflexes from one eye to the pupil of the other. This connection is probably through commissural fibres between the nuclei of the oculomotors.

6. The centres of the pupil-narrowing reflexes do not lie, as Hensen and Völkers think, at the bottom of the third ventricle, nor, as Adamük says, behind the corpora quadrigemina, but in all probability are localized in the nuclei of the oculomotors.

7. At the bottom of the third ventricle are no centres for the movement of the ocular muscles in the sense held by Hensen and Völkers.

8. The changes in the position of the eyes, together with the general motor disturbances by irritation or destruction in the neighborhood of the third ventricle, are in their character like those seen in the eye after destruction of the semicircular canals or the olivary bodies of the medulla, and show that the above-named region, as well as the semicircular canals and olivary bodies, have an influence over the whole motor sphere of the animal.

9. The centres for the voluntary movement of the ocular globe must be located in the nuclei of the nerves innervating the ocular muscles.

10. The localization of an accommodation-centre in the region of the bottom of the third ventricle cannot be held as substantiated from the foregoing observations.

11. The dilating action of painful irritation upon the pupil is conveyed not through the sympathetic fibres, but can result independently through inhibition of the light-reflex.

12. The so-called motionless pupil is probably due to pathological processes which break the path of the light-reflexes in their course from the chiasm of the optic nerves to the nuclei of the oculomotors.—*Pflüger's Arch.*, 1883, Band xxxi., Heft 1 and 2.

RESPIRATORY INNERVATION.—Prof. Knoll has made experiments upon this subject, using rabbits. The vagus is irritated by its own current. If the vagi are previously divided, and they are lifted from the wound in the neck, a marked change occurs in the respiratory movements producing an expiration. A similar expiratory arrest can be produced by allowing the elevated vagi to settle down in the wound. If a mica plate is put under the vagus and a 0.6-per-cent. salt solution is applied to the nerve, the expiration also takes place; also, if the nerve is lifted out of the salt solution. The application of the metal electrodes to the nerve, although no current is passing, also causes it. These effects are produced by variations in the current of the vagus itself. When